

**REMARKS**

Claims 1, 3, and 5-20 are pending in the present application. Claims 1, 5, 8, 15, 18, and 20 are independent claims.

**ALLOWABLE SUBJECT MATTER**

Applicants acknowledge the Examiner's indication that claims 15-19 are in condition for allowance.

**OBJECTION TO THE SPECIFICATION**

The Examiner objects to the specification as failing to provide proper antecedent basis for the claimed subject matter, in particular, the Examiner asserts that the term "frequentist likelihood function" is objected to. This objection is respectfully traversed for the following reasons.

Applicants respectfully submit that a frequentist likelihood function is described in the Summary of the Invention at page 2, lines 29-30. Further, an exemplary frequentist likelihood function is set forth in Equation 1, on page 7, line 16 of the original specification and the derivation of Equation 1 is provided in Appendix A of the original application, at page 13, lines 21-24. Accordingly, Applicants respectfully submit that the present specification does provide antecedent basis for the term "frequentist likelihood function". Accordingly, reconsideration and withdrawal of this objection is respectfully requested.

**35 U.S.C. § 112, FIRST PARAGRAPH REJECTION**

Claims 1, 3, 6-7, 9-14, and 20 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In particular, the Examiner asserts that the specification fails to originally support and inaccurately describe the claim frequentist likelihood function as stated in claims 1 and 20. This rejection, insofar as it pertains to the presently pending claims, is respectfully traversed for the following reasons.

For the reasons set forth above with respect to the rejection to the specification, Applicants respectfully assert that the frequentist likelihood function is generally introduced in the Summary of the Invention, at column 2, lines 29-30 of the present specification, an exemplary frequentist likelihood function is provided in Equation 1 on page 7, line 16 of the original specification, and an exemplary derivation of the frequentist likelihood function of Equation 1 is discussed at page 13, lines 21-24 of the present specification. Accordingly, Applicants respectfully submit that the original specification does support claims to a frequentist likelihood function. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

**35 U.S.C. § 112, FIRST PARAGRAPH REJECTION**

Claim 20 has been rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. In particular, the Examiner asserts that the software for calculating is not enabled. This rejection, insofar as it pertains to the presently pending claims, is respectfully traversed for the following reasons.

Applicants respectfully assert that there is absolutely no question that any of method claims 1, 3, and 5-19 is supported. Applicants have laid out in detail, the theory, derivation, and

application, of the various algorithms necessary for performing methods of the present application.

Applicants respectfully assert that there is absolutely no doubt that the present application provides support for the function "... calculating, in response to one or more attribute values being measured and reported by a mobile unit from a specific location within the service area, a predicted location of the mobile unit within the service area using a likelihood function, the likelihood probability function having an interactive procedure for producing a maximum likelihood of the estimator of the mobile units location in this service area ...". Applicants respectfully submit that it is trivial that one of ordinary skill in the art would know that such a calculation would be performed on a general or special purpose computer. *In re Dossel*, 42 USPQ 2d 1881, 1885 (Fed. Cir. 1997).

To bolster this conclusion, Applicants note that in the telecommunications field, it is well within the realm of common experience that computers are used to implement probability function for processing one or more input attribute values. *Id*

Accordingly, Applicants respectfully submit in light of the 1997 holding in *Dossel*, independent claim 20 is sufficiently supported under 35 U.S.C. §112, first paragraph.

### **35 U.S.C. §102(E) CHANG ET AL. REJECTION**

Claim 8 has been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,564,065 to Chang. Claims 8 recites the sequential Bayesian procedure characteristics are implemented as a Bayes-modified likelihood function. In paragraph 8 on page 7 of the outstanding Office Action, the Examiner does not even assert that Chang discloses such a

function. Accordingly, Applicants respectfully submit that independent claim 8 is allowable for at least this reason.

Although Chang discloses a Bayesian-update method, Chang does not disclose a Bayes-modified likelihood function. Accordingly, Applicants respectfully submit that independent claim 8 is allowable for at least this reason.

### CONCLUSION

In view of the above remarks, reconsideration of the various rejections and allowance of claims 1, 3, and 5-20 is respectfully requested.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) hereby petition(s) for a one (1) month extension of time for filing a reply to the outstanding Office Action and submit the required \$110.00 extension fee herewith.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John A. Castellano at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By



John A. Castellano, Reg. No. 35,094  
P.O. Box 8910  
Reston, Virginia 20195  
(703) 668-8000

JAC/cah